



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Bryan Chambers

For

AN ANCHOR ASSEMBLY FOR A ROAD POST

Serial No.

10/649,290

Filing Date

August 27, 2003

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Cleveland, Ohio 44114-2518

March 17, 2005

Assistant Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

CLAIM FOR RIGHT OF PRIORITY

Dear Sir:

Pursuant to 37 C.F.R. §1.55 and MPEP §201.14, applicant claims the benefit of the filing date of a prior Australian patent application having Application No. 2002951101, filed on August 30, 2002, under conditions specified in 35 U.S.C. §119.

A certified copy of the original foreign application is being filed herewith.

Respectfully submitted,

FAY, SHARPE, FAGAN, MINNICH

& McKEE, LLP

March 17, 2005

Date

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CERTIFICATE OF MAILING

I hereby certify that the foregoing Claim For Right Of Priority is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 17th day of March 2005.

Kathleen A. Nimrichter

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Patent Office Canberra

I, SMILJA DRAGOSAVLJEVIC, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2002951101 for a patent by BRYAN CHAMBERS as filed on 30 August 2002.

I further certify that the above application is now proceeding in the name of SLIDER GUIDE PTY LTD pursuant to the provisions of Section 113 of the Patents Act 1990.

WITNESS my hand this Third day of September 2003

5. Sragosonyone

SMILJA DRAGOSAVLJEVIC TEAM LEADER EXAMINATION SUPPORT AND SALES

CERTIFIED COPY OF PRIORITY DOCUMENT



Title

An Anchor Assembly for a Road Post

Field of the Invention.

This invention is directed to an anchor assembly which can be used to attach a road post, a guidepost, any other type of post, or indeed, any other type of member. The invention will be described with reference to a road post but it should be appreciated that no limitation is meant thereby.

Background Art.

Most roadways are provided with spaced apart road posts or guideposts. These posts provide a visual indication of the edge of the road and are usually provided with a reflector to provide improved visibility. These posts are usually made of wood and have a length of between 1-2 m, a width of between 5-10 cm and a similar thickness. Sometimes, the posts can be made of plastic or metal.

These road posts are typically spaced apart by distance of between 50-200 m which means that there are thousands of such posts on each side of a long-distance road.

It is often necessary to slash the roadside grass. A tractor mounted slasher is typically used for this process. It is necessary to ensure that the guideposts are kept clear of weeds to maintain visibility for the safety of motorists.

When the tractor slasher encounters a guidepost, the operator is forced to detour is closely around the post as possible. However, this always leaves a patch of grass or weed around the guidepost that the slasher cannot reach. Damage to the guidepost often occurs by the slasher accidentally striking the guidepost.

Typically, after the slasher has mowed the roadside grass, the patch of grass or weed around the guidepost is separately cut using a line trimmer and this

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requires additional labour and incurs additional cost. Alternatively, the grass or weed can be sprayed but this also incurs additional labour cost and can result in unacceptable environmental pollution.

- Therefore, there would be an advantage if it was possible to quickly remove the roadside guidepost prior to mowing and then replace the guidepost. In this way, there would be no patch of grass/weed around the guidepost and it would not be necessary to spray the weeds or to use line trimmers.
- Another disadvantage with guideposts is the quite laborious technique used to insert the guidepost into the ground. Typically, a hole is dug and the guidepost is placed in the hole. Sometimes, concrete is used to hold the guidepost in place. The hole is dug using a digging augur which is typically hydraulically operated and therefore requires a "bobcat" or similar machine.
- The guidepost is dropped into the hole and and operator must backfill the hole once the guidepost has been placed and compact the loose earth around the post. Alternatively, the post is simply pounded into the ground. This latter technique requires an extremely strong post to be used.
- With these conventional techniques, should a post become damaged or destroyed, it is difficult, time-consuming, and therefore quite expensive to replace the damaged or destroyed post.
- Therefore, there would be an advantage if some form of anchor assembly could be developed which would allow a guidepost which has been damaged or which otherwise requires replacement to be more easily replaced.
 - It will be clearly understood that, if a prior art publication is referred to herein, this reference does not constitute an admission that the publication forms part of the common general knowledge in the art in Australia or in any other country.

Object of the Invention.

It is an object of the invention to provide an anchor assembly for a guidepost which may at least partially overcome the above-mentioned disadvantages or provide the consumer with useful or commercial choice.

In one form the invention resides in an anchor assembly for a guidepost, the anchor assembly comprising a first part and a second part, the first part being adapted to be ground engaging, the second part being adapted for attachment to the guidepost, the second part including a tongue member, the first part including a slot, the tongue member being receivable in the slot to releasably attach the second part to the first part.

In this manner, a guidepost can be attached to the second part and the second part can be releasably attached to the first part. The first part is typically pounded into the ground to provide an anchor, and the second part, by being attached to the first part provides a mount for the guidepost. Should the guidepost become damaged or otherwise require replacement, the second part can be removed from the first part typically by a strong blow or kick.

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- Moreover, by having the attachment of the first part and the second part substantially at ground level, when the second part (and therefore the guidepost) is removed, the area can be moved or slashed without there being any abutment/projection etc which can strike the blades of the slasher.
- Thus, prior to mowing, the operator can simply kick the guidepost away from attachment to the first part, can then mow the area, and can then replace the guideposts. Spraying using chemicals, or the requirements of separate line trimmers is not required.
- In a broad form, the invention comprises an anchor assembly for an elongate member the anchor assembly comprising a first part adapted for insertion into the ground, and a second part adapted for attachment to the elongate member, the second part being releasably attached to the first part.

Suitably, the first part comprises a member which can be pounded into the ground. For this reason, the first part is typically made of steel. The member may comprise a pointed lower end to facilitate insertion into the ground. The member may further comprise angled flanges to minimise movement once the first part is in the ground. Thus, the member, in one form, may be channel shaped and may have a base wall and a pair of extending sidewalls. When pounded into the ground, this particular shape minimises movement of the first part. However, it should be appreciated that the member may comprise other configurations to facilitate penetration into the ground and to reduce in ground movement.

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The first part may be made of steel plate having a thickness of between 2-5 mm. If the first part is channel shaped, the length of the first part may be between 10-50 cm, the width may be between 5-20 cm and the depth, or thickness, may be between 2-5 cm. It should be appreciated however that no limitation is meant thereby.

The first part may be formed from a single plate of steel which can be bent to form the channel shaped configuration.

Suitably, the first part is formed with a top wall. The top wall may be substantially rectangular and may comprise a folded in portion of the steel plate from which the first part is manufactured. To provide strength, the top wall may be welded or otherwise fastened to one or more of the sidewalls.

The top wall may comprise a slot or other type of means to allow the second part to be connected to the first part. The slot may comprise a full slot, a partial slot and the like. In an example, the slot may comprise a pair of folded tab portions expending slightly above the top wall and defining a spacing into which the tongue member or portion of the second part can pass.

It is preferred that the slot and the tongue member are arranged such that the

tongue member is frictionally engaged in the slot. This prevents the tongue member from inadvertently being removed from the first portion. It is preferred that the fictional engagement is such that a sharp blow (such as a kick or a hammer blow) can remove the tongue member from the slot.

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If desired, the slot arrangement may contain some form of means to facilitate frictional engagement with the tongue member and/or the tongue member . may contain some form of means to facilitate frictional engagement within the slot. For instance, the means may comprise one or more

projections/buttons/ribs/abutment and the like.

The second part may comprise a metal plate or metal sheet which can be bent/cut or otherwise configured to form the desired shape. In a preferred form, the second part is substantially L-shaped in configuration. Thus, the second part may comprise a first portion and a second portion which are typically substantially at right angles to each other. The second portion may contain or may comprise the tongue member. The tongue member typically comprises a substantially rectangular part. The first portion may be substantially flat and may be adapted for attachment to the bottom of a guidepost or other type of elongate member, or any other type of member which may benefit from attachment to the particular assembly. The first portion may comprise attachment means. The attachment means in a simple form may comprise one or more openings expending through the first portion to allow fasteners to fasten the guidepost to the first portion.

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Brief Description of the Drawings.

An embodiment of the invention will be described with reference to the following figures in which:

- Figure 1. Illustrates a perspective view of an anchor assembly according to an embodiment of the invention.
- Figure 2. Illustrates the assembly of Figure 1 from the other end.
- Figure 3. Illustrates the assembly of Figure 1 in side view.
- Figure 4. Illustrates a close-up view of the attachment of the first part to

the second part.

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Figure 5. Illustrates a bottom view of the assembly of Figure 1.

Figure 6. Illustrates a close-up view of the top wall of the first part.

Figure 7. Illustrates the assembly of Figure 1 disassembled.

Best Mode.

Referring to the drawings there is illustrated an anchor assembly 10 which in this particular embodiment comprises only two parts being a first part 11 and a second part 12. Referring initially to first part 11, this part is manufactured from a single sheet of steel typically having a thickness of between 1-4 mm. The steel may be galvanised or otherwise treated to reduce corrosion. The single sheet of steel is bent such that first part 11 is substantially channel shaped in configuration and comprises a pair of sidewalls 13, 14, a back wall and 15, and a top wall 16. The sidewalls 13, 14 taper at 17, 18 to the back wall 15 and in this area, back wall 15 tapers to a pointed nose 19 to allow the first part to be more easily pushed into the ground. The length of the first part can vary but in the particular embodiment is between 20-40 cm. The width of back wall 15 can vary, but in the particular embodiment is between 10-20 cm. The width of each sidewall can vary, but in the particular embodiment is between 2-5 cm. The channel like or shovel like configuration allows the first part to be pounded into the ground and once in the ground, prevents unwanted movement.

Each sidewall 13, 14 has an upper end which is bent over to form a pair of tabs 20, 21, these tabs partially defining a slot to allow the second part 12 to be attached to the first part 11 as will be described in greater detail below.

Top wall 16 comprises a bent over portion of the single sheet of metal which forms the first part, this being better illustrated in figure 2. Top wall 16 is bent substantially at right angles relative to back wall 15, and the size of the top wall is such that it projects upwardly or outwardly from each sidewall 13, 14 to provide a desirably large platform for attachment of the second part 12 to the first part 11. To make top wall 16 rigid and stiff, it is welded to each sidewall 13, 14 this being better illustrated in figure 2.

Each tab 20, 21 is bent at right angles relative to the remainder of each sidewall 13, 14 and is spaced slightly above top wall 16 by a spacing which approximates the thickness of the steel of second part 12 such that second part 12 can frictionally engage with the inner walls of each tab 20, 21 and top wall 16. This will be described in greater detail below.

Each tab 20, 21 (see figure 6) is formed with a button shaped portion 22, 23 to facilitate engagement with the second portion by providing a slight narrowing of the slot spacing. The button shaped portions 22, 23 can also function to prevent tabs 20, 21 from inadvertently being pressed hard up against top wall 16 such that a spacing or slot does not form.

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In use, first part 11 can be hammered into the ground such that top wall 16 is adjacent the ground surface. This means that if second part 12 is not attached, a mower can pass over the top of first part 11 without the mower blades striking any portion of the first part.

Second part 12 comprises a single metal sheet which is bent to form a substantially L-shaped configuration comprising a first portion 24 and a second portion 25 (this being best illustrated in figure 7). First portion 24 is adapted for attachment to a guidepost or similar member and therefore may comprise a flat portion formed with a number of openings 27 to allow a fastener to attach the guidepost to first portion 24. The length of first portion 24 can vary but in the embodiment is between 10-20 cm. The width of the first portion 24 can vary but in the embodiment is between 5-15 cm. The thickness of the first portion 24 can vary but in the embodiment is between 1.5-4 mm.

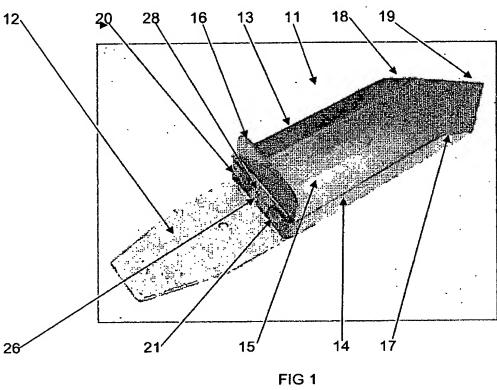
The second portion 25 forms the tongue member 26 of the second part 12.

Thus, tongue member 26 has a length to allow it to pass into the slot defined by tabs 20, 21. The length is typically between 1-5 cm.

In use, a guidepost can be attached to first portion 24. The guidepost and the second part 12 can then be fitted to first part 11 by pushing tongue member 26 into the slot defined by tabs 20, 21. If desired, a small grub screw (not illustrated) can pass through opening 28 in the tongue member 26 to more securely attach the guidepost to the first portion 11. When the area needs to be mowed, and operator can simply kick out tongue member 26 from engagement in the slot. The mower can then pass over the top of first part 11 with no damage. The guidepost can then be replaced by kicking tongue member 26 into the slot. Similarly, if the guidepost has been damaged and requires repair or replacement, it can be simply removed without needing to remove first part 11 which can stay in the ground. Should the guidepost be hit by a motor vehicle, the guidepost will normally be pushed out of engagement in the slot. If the slot tabs 20, 21 have been prized open, they can be hammered back into position.

Another advantage of the anchor assembly is that it is not necessary to pound guideposts directly into the ground. This means that the guideposts can be made of plastics material, thin metal and the like, which can provide improved safety to motorists. The installation cost is less.

It should be appreciated that various other changes and modifications can be made to any embodiment described without departing from the spirit and scope of the invention.



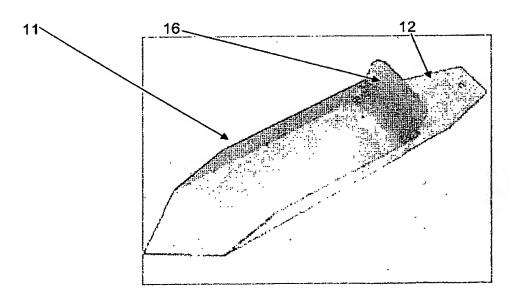


FIG 2

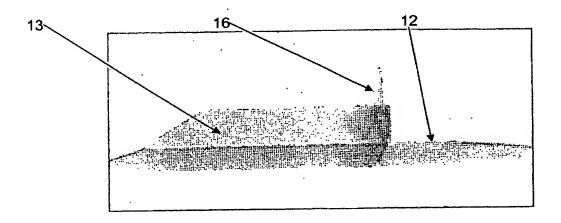
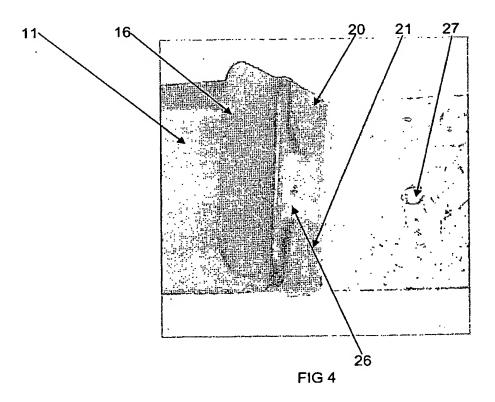


FIG 3



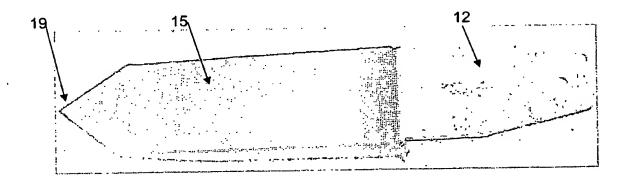


FIG 5

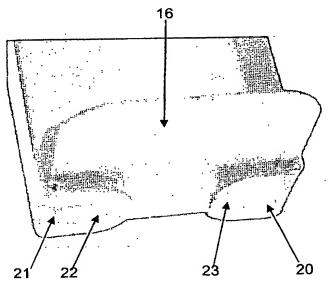


FIG 6

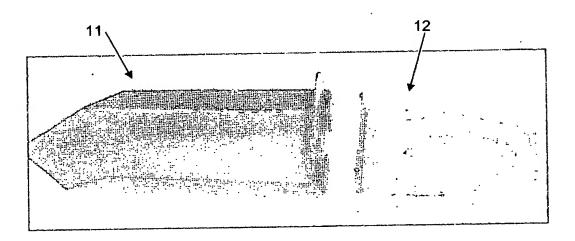


FIG 7